

# Taiping Bridge Renovation

## 太平古桥修复工程

**项目地点** 中国贵州省紫云县新场村

**项目设计** 林君翰 (RUF)

**项目团队** 詹家欣, 李宾, 杨书朗, 黎隽维, 顾力恒, 郑晓彤, Zhang Xudong, 刘晓扬, 朱令同, 张惠雅

**工程顾问** Dr. Xing Shijian

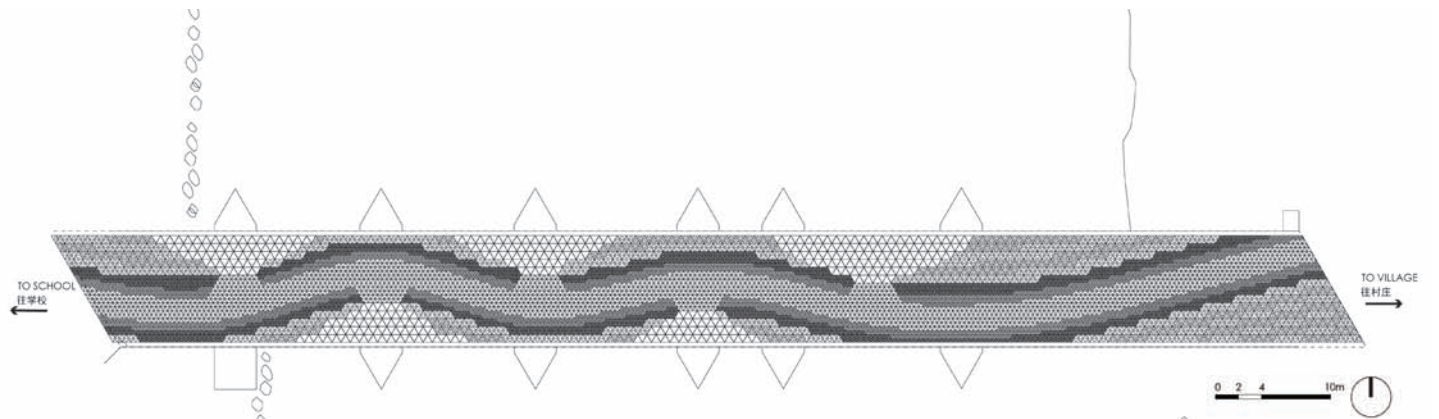
**委托捐助者** 无止桥慈善基金

**协作单位** 香港大学, 重庆大学

**摄影** 城村架树 (RUF)

太平古桥位于贵州，拥有 300 年历史。古桥修复是一个为期两年的计划，为大桥进行重建以及桥面修复。项目由香港大学与重庆大学合作，针对了解可持续发展和城市化快速发展的中国农村村庄。与中国大多数农村地区一样，村里已经发生了巨大的转变，反映着迅速的城市化进程。项目融合了旧时就存在的石建筑和现代的预浇筑混凝土。建筑上首要的任务是修补已坍塌的拱门，但更重要的是确立一个活化这一历史地区的计划。拱门的修补和桥面人行道的铺设用上了预浇筑混凝土，工人依传统设计桥面座椅，村民与志愿者更种植了大大小小的树木，有的植物是捐赠而得，有的来自附近的山峦。如此一来，整座大桥就变成了附近居民新的公共空间。

The TaiPing Bridge Project was a two-year reconstruction and surface renovation project of a historic 300 year-old bridge in Guizhou Province, China. Led by students and professors at The University of Hong Kong in collaboration with Chongqing University, the project addresses the sustainable development and rapid urbanization of rural Chinese villages. Like most rural areas in China, the village has undergone massive changes, reflective of the rapid urbanization process elsewhere. The project attempted to reconcile the long history of the existing masonry construction with modern techniques of pre-cast concrete. Though the primary task was to repair a collapsed arch, the larger problem was how to revitalize the once important and historic location. Precast concrete was used to rebuild the arch as well as pave the bridge. Bridge pavers were custom designed to transform into planters at various scales as well as seating. In this way the bridge was re-programmed as a public space. Volunteers and villagers planted the bridge with a combination of donated plants and wild varieties sourced from the surrounding mountains. [AT](#)



太平古桥平面

委托日期: 2007.9  
 竣工日期: 2009.8  
 总面积: 200m<sup>2</sup>  
 总造价: 155 750.RMB  
 单位造价: 778.75 RMB/m<sup>2</sup>



太平古桥修复建造过程

## HISTORY



1700 Qing Dynasty



1900



1950

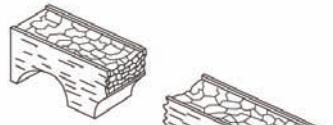


2005

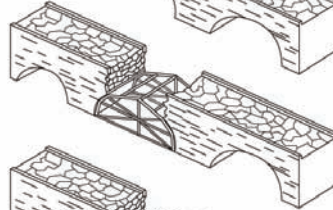


2009 Renovation

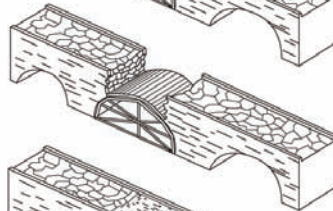
## CONSTRUCTION PROCESS



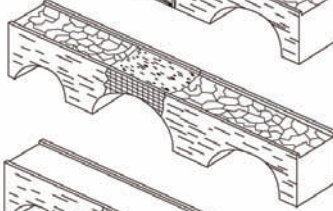
In the summer of 2005 the arch of the Qing Dynasty bridge collapsed under heavy rainfall and flooding



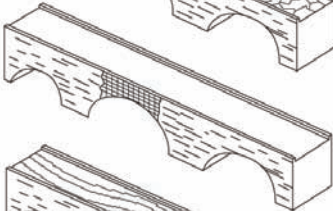
Scaffolding is constructed during a two month dry season



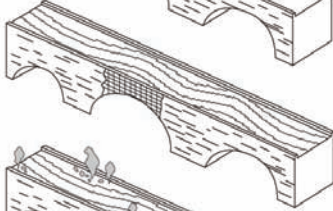
The arch is rebuilt with pre-cast concrete blocks



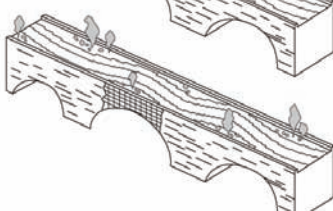
The bridge face is rebuilt from stones recovered from the bridge collapse



A new waterproofing layer is applied



The bridge is paved with custom designed concrete pavers to provide seating and planting areas

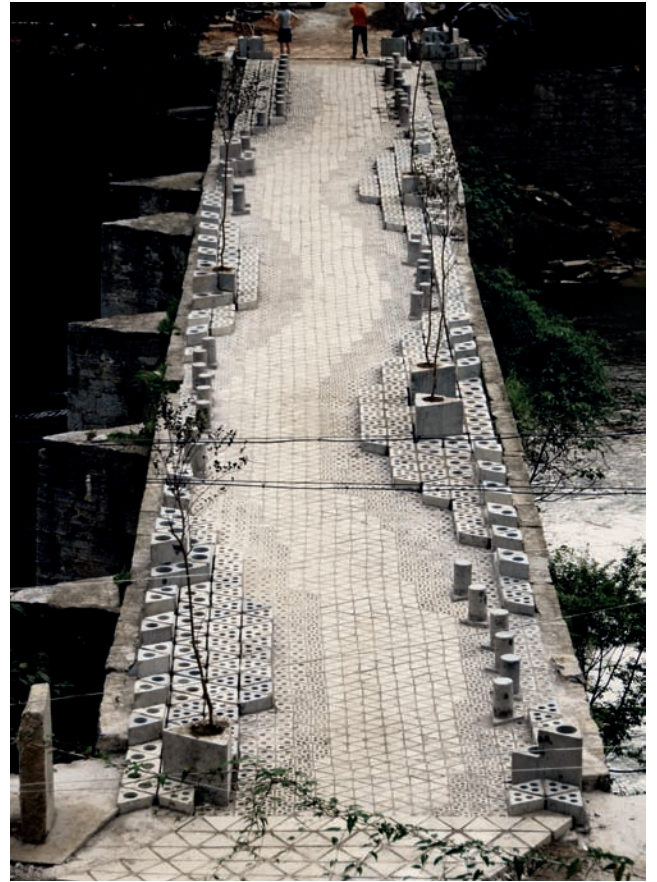


The planting of the bridge is conducted with student volunteers and villagers together

修复设计分析



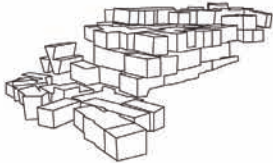
建成后的太平桥



桥面模块的施工过程



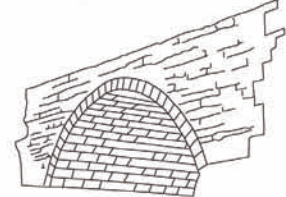
The location of cracks was mapped and injected with concrete to stabilize the bridge



Pre-cast concrete blocks were used to reconstruct the arch



Wooden scaffolding was built during a 2 month dry period



The face of the arch was rebuilt from stone recycled from the collapsed bridge

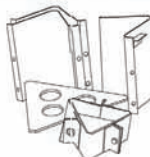
利用脚手架修复古桥



Formwork for the pavers was made using readily available pvc pipes



The openings correspond to standard sizes of pvc pipes

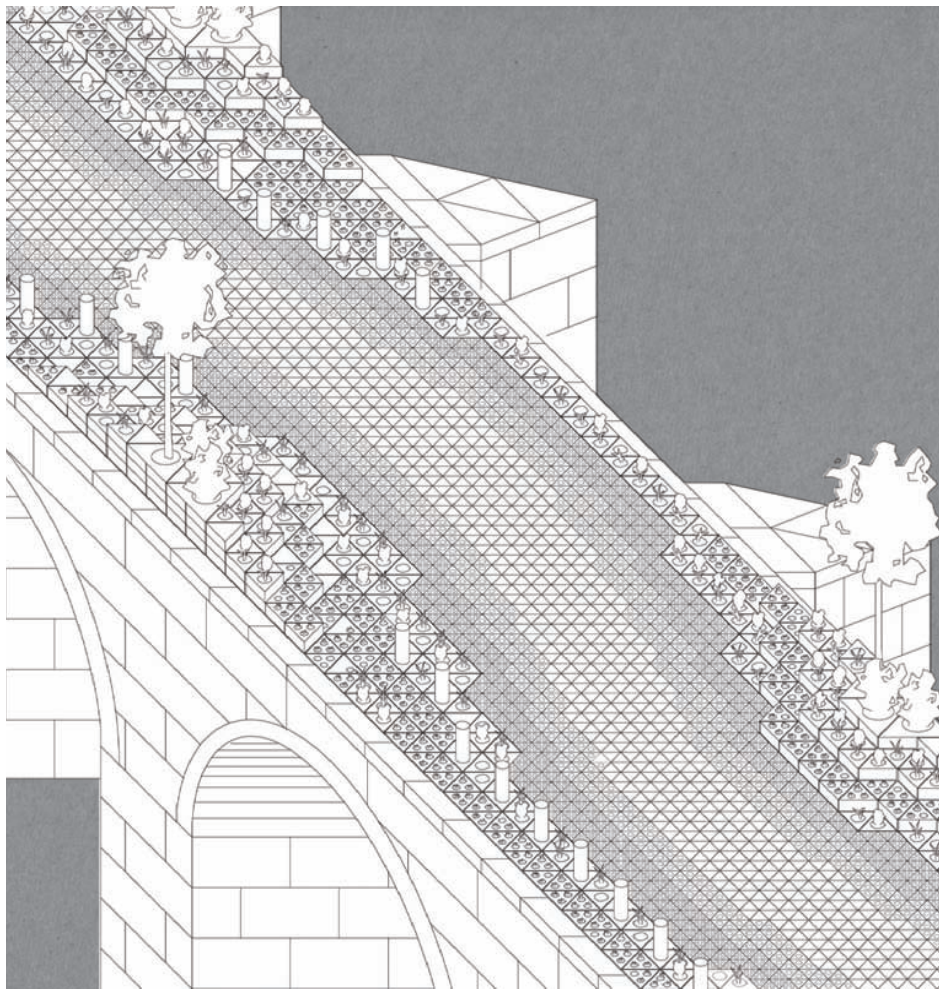


Pvc pipes are manually removed after casting


















Varying the mixture of concrete produces two different colors of pavers

铺路石的建造过程



PAVERS

- 

Hard pavers for walking
- 


Small pavers for grass
- 



Medium size pavers for local varieties of plants (sourced from nearby)
- 

Circular pavers to provide seating areas
- 

Large stepped planter for grass
- 

Large planters for trees to provide additional shade

太平古桥设计图纸



太平桥成为村民喜欢的公共空间